

Abstract of the Disclosure

Provided is a method for manufacturing a papermaking belt structure using tapes made of a solid thermoplastic resin surrounding a fibrous matrix. The method calls for applying a layer of CD oriented tapes to a mandrel surface, then applying a layer of MD oriented tapes over the CD layer, applying pressure and heat to the mandrel containing the CD and MD layers so to melt the resin and entirely bond/encapsulate the fibrous matrix. The belt structure thus obtained may thereafter be grooved, drilled or other processed as desired. Additionally, the above method can be reversed as to the MD/CD order of layering. Also, a layer entirely of resin can be applied, preferably prior to, but also after or in between the MD/CD layers. Also, rubber can comprise one or more layers.